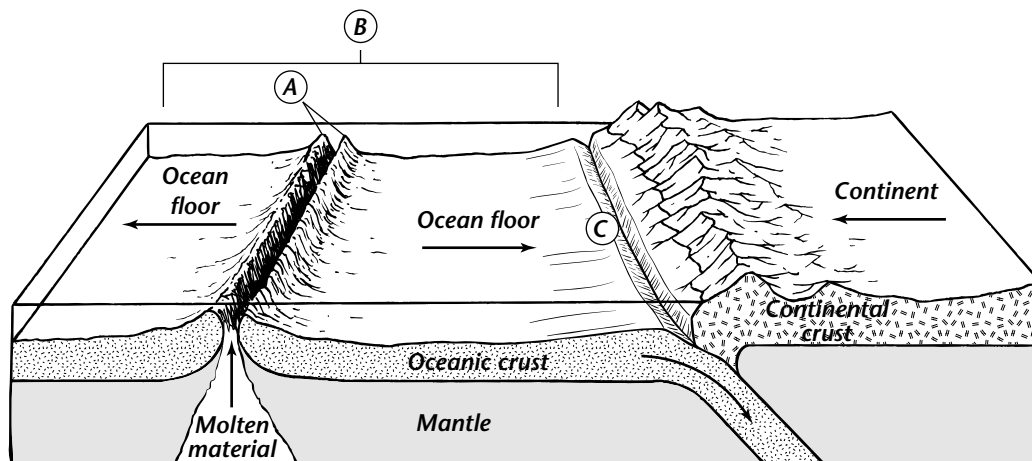


Sea-Floor Spreading

Understanding Main Ideas

Use the figure below to answer the questions that follow. Answer the questions on a separate sheet of paper.



1. Name and describe the feature of the ocean floor shown at A.
2. Describe the process shown occurring at B, and explain what results from this.
3. What happens to old oceanic crust as new molten material rises from the mantle?
4. The arrows on the figure show the ocean floor spreading from the ridge. What are three kinds of evidence scientists have found to support this idea?
5. What process is shown occurring at C, and why does it occur?

Building Vocabulary

Fill in the blank to complete each statement.

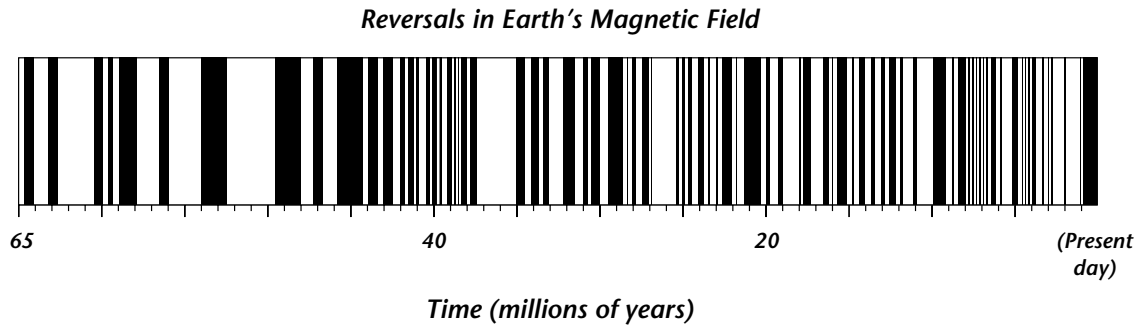
6. A device that scientists use to map the ocean floor is _____.
7. The feature on the ocean floor at C is called a(n) _____.
8. The process that continually adds new material to the ocean floor is called _____.
9. The process by which the ocean floor sinks into the mantle is called _____.
10. A chain of underwater mountains along which sea-floor spreading occurs is a _____.

Plate Tectonics ▪ Enrich

Magnetic Reversals Through the Ages

How often does Earth's magnetic field reverse itself? The graph below shows the record geologists have put together for the last 65 million years. As you might know, the last of the dinosaurs died about 65 million years ago. So you can think of this graph as the record of Earth's reversals since the dinosaurs became extinct.

In this graph, each dark band represents a "normal" magnetic field, as it is today. Each light band represents a reversed magnetic field. Use the graph to answer the questions that follow.



Answer the following questions on a separate sheet of paper.

1. Was Earth's magnetic field "normal" or reversed 65 million years ago?
2. About how long ago was the last time Earth's magnetic field reversed?
3. Can you see any pattern in how often Earth's magnetic field reverses?
Give reasons for your answer.
4. How would this history of reversals show itself on the ocean floor?
5. From this graph, when would you predict the next reversal would occur?
Give reasons for your answer.